CALFED Bay-Delta Program Project Information Form

Watershed Program - Full Proposal Cover Sheet

Attach to the cover of full proposal. All applicants must fill out this Information Form for their proposal. Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.

1. Full Proposal Title:_
North/Middle Forks American River Watershed EUI-Based Watershed Management Plan
Concept Proposal Title/Number:_NF/MF American River Watershed Sediment Plan (wsp01-0018)
Regional EUI-watershed Planning Procedure/NF/MF American River Watershed Plan(wsp01-0016)
Applicant:__Placer County Resource Conservation District
Applicant Name:_Richard Gresham, Manager
Applicant Mailing Address:_251 Auburn Ravine Rd. Suite 107
__Auburn, CA 95603__
Applicant Telephone:_(530) 885-3046 ext 6_____ Applicant Fax:_(530) 823-5504__
Applicant Email:_rcd@quiknet.com
Fiscal Agent Name (if different from above):__ _____
Fiscal Agent Mailing Address:_____
Fiscal Agent Telephone:_____ Fiscal Agent Fax:_____ Fiscal Agent Email:_____

2. Type of Project: Indicate the primary topic for which you are applying (check only one)

_____Assessment	_____Monitoring
_____Capacity Building	_____Outreach
_____Education	__X___Planning
_____Implementation	_____Research

3. Type of Applicant:

_____Academic Institution/University	_____Non-Profit
_____Federal Agency	_____Private party
_____Joint Venture	_____State Agency
__X___Local Government	_____Tribe or Tribal Government

4. Location (including County):

What major watershed is the project primarily located in:
_____Klamath River (Coast and Cascade Ranges)
___X__Sacramento River (Coast, Cascade and Sierra Ranges)Placer and El Dorado
_____San Joaquin River (Coast and Sierra Ranges)
_____Bay-Delta (Coast and Sierra Ranges)
_____Southern CA (Coast and Sierra Ranges)
_____Tulare Basin (Coast, Sierra and Tehachapi Ranges)

5. Amount of funding requested: $554,500
Cost share/in-kind partners? __X___Yes _____No
Identify partners and amount contributed by each:

Placer County RCD	$20,000
USFS	$245,000

ARDI $16,000

6. Have you received funding from CALFED before? __X___Yes ____No
   If yes, identify project title and source of funds:
1998 Category III Grant 98E14 $220,750.00 American River (North and Middle Forks) Integrated Watershed Plan and Stewardship Strategy. Source of funding is BOR

By signing below, the applicant declares the following:

1. The truthfulness of all representations in their proposal
2. The individual signing this form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or an organization)
3. The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the Watershed Program Proposal Solicitation Package and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent provided in the Proposal Solicitation Package.

_____Richard Gresham_____
Printed name of applicant

_____
Signature of applicant

North Fork and Middle Fork American River EUI-Based Watershed Management Plan

1: Project Summary

This project is a combined and integrated, but task-severable, proposal that includes the concept proposals of both the North Fork/Middle Fork (NF/MF) American River Watershed Sediment Management Plan (WSMP) (WSP01-0018) and the Regional EUI-Watershed Planning Procedure and NF/MF American River Watershed Plan (WSP01-0016). The Sediment Management Plan proposal is presently before the State Water Resource Control Board for funding consideration under Proposition 13. If that proposal is successful we will sever the sediment and channel inventory (Task 2) and the sediment and channel stewardship program (Task 6) from this proposal

These concept proposals have been combined for five reasons: 1) both address the same watershed area; 2) both advance the watershed stewardship and planning activities of the American River Watershed Group (ARWG); 3) both are based on the findings and conclusions of, and build upon, the present on-going ARWG NF/MF American River Watershed Plan and Stewardship Strategy project (WSP&SS); 4) they inter-relate in that the sediment and channel management phase will provide an enhanced understanding of watershed channel conditions, channel processes, sediment budget and routing, and many of the CALFED and ARWG watershed resource objectives and the Basin Plan beneficial uses and will provide a valuable input to the EUI-based watershed plan approach effort; and 5) both lead to watershed stewardship, restoration, and management plan implementation, which integrates federal and state resources management, county land-use planning, and local water and power resource agency planning with watershed group planning around watershed issues.

Project Description

The proposed project is designed to build upon the results of the soon to be completed WSP&SS inventory and watershed process/function assessment developed from existing data and resource information. The proposed project will extend existing watershed knowledge by addressing the most important gaps identified by the current project, sediment sources, sediment routing and channel conditions, and will extend the combined watershed process/function knowledge base to a watershed plan. This portion of the proposed project will include an inter-agency field methods process of inventorying channel and sediment production characteristics, resulting in: 1) understanding channel characteristics and dynamic process relationships of the channels of the watershed network; 2) development of a general sediment budget for the watershed and; 3) understanding sediment routing patterns and channel adjustment characteristics of the channels. The results of this portion of the project will not only serve to enhance the EUI-based watershed planning effort (below) but will also be developed into a long-term ARWG Sediment Management Stewardship Program. Both the American River Watershed Institute (ARWI) and Placer County Water Agency have an interest in an ongoing citizen-based monitoring research, and education program.

The proposed EUI-based watershed plan development portion of the project will be a research methods effort to adapt the USFS Ecological Unit Inventory (EUI) method to watershed planning and management purposes. A EUI-Based Watershed Planning Method will be developed through a real-time watershed planning exercise for the NF/MF American River Watershed that will engage all the major resource and land use management entities as well as all community interest sectors, including programs like Placer County Legacy. This watershed planning process will result in both a Watershed Plan for the NF/MF American River and a EUI-Based Watershed Planning Method that will be designed to be useful in the major CALFED Solution Area watersheds. This method will be well suited in large watersheds where USFS lands predominate in the upper watershed and private land and local agency jurisdiction predominate in the lower portions of the watershed and

where there is an interest in watershed collaboration at the assessment, plan development, and plan implementation stages.

Project Assumption, Need, and Purpose

The ARWG WSP&SS seeks to identify resource information/data gaps and needed watershed science necessary to adequately understand the nature of watershed resource conditions and their process and function relationships. It identifies needed stewardship protection and restoration actions and develops a Stewardship Strategy and a program for watershed protection and restoration implementation. Although the WSP&SS process quickly identified that many if not most of the watershed resource values targeted for stewardship importance were associated with the streams and channels of the watershed, almost no information presently exists as to the nature of channels, water quality, or aquatic and riparian habitat conditions. No resource information exists that can be used to identify protection and restoration needs, or for the understanding of the dynamic relationships between channel process and conditions and watershed sediment production and routing. Sediment however has been identified to be a significant factor to many of the key-resource values and integral to many of the designated beneficial uses in the watershed.

There are three purposes of the sediment and channel management portion of the proposed project: 1) add sediment source, sediment regime, and channel dynamic condition and characteristic information to the watershed assessment; 2) develop, and maintain, a GIS data center hosted at Sierra College on sediment and channel conditions available to all agencies, entities, and landowners involved with resource management and planning, and; 3) develop and implement an ARWG Stewardship Strategy to facilitate and coordinate restoration projects within the agency, landowner, and economic interest sectors.

The national forests of California are currently initiating several resource management activities associated with the Sierra Nevada Framework. Among these activities is the EUI method designed to be a tool to assist in resource management decision making. The EUI is GIS-based and uses geology, geomorphology, soil productivity, and potential natural vegetation as parameters to categorize and classify discrete land units of national forest lands for their most appropriate uses based on their "ecological characteristics." Over the coming years EUI data sets will be developed for all USFS lands which include the headwaters of the major watersheds systems tributary the Sacramento-San Joaquin River and Delta System. The opportunity exists to explore the usefulness of the EUI assessment approach in developing a uniform watershed assessment method for these major watershed that can tie the upstream public lands to the downstream private and local jurisdictional lands using watershed process parameters. While the USFS hopes to use the EUI approach for watershed management planning, the EUI presently does not inherently incorporate meaningful watershed process and function parameters, the discrete inventoried land unit polygons are not spatially related via dynamic watershed processes, and the basic method does not incorporate dynamic temporal dimensions necessary for watershed process and function application. The EUI for the Tahoe NF using typical parameters will be initiated this year and will be completed late 2002 while the Eldorado NF EUI is scheduled for completion late this year. For both these efforts, project timing is such that watershed parameters can be added to supplement the typical USFS EUI assessment. The opportunity is that the existing ARWG WSP&SS has developed the watershed process/function components and parameters necessary to modify the USFS EUI to make it suitable for watershed assessment.

The watershed plan portion of the proposed project will use our existing understanding of watershed process and function in the watershed to modify the existing EUI method to incorporate appropriate watershed process/function attributes and spatial and temporal dynamism such that it can serve as a watershed assessment and planning tool for large scale watersheds with multiple and federal/non-federal jurisdictional mixes. The purposes are to develop a EUI-based watershed planning approach, to create a watershed plan for the NF/MF American River watershed using that approach, and to develop a EUI-Based Watershed Planning Method as a tool applicable to most of the major CALFED Solution Area watersheds of mixed jurisdictions. To that end both Placer and El Dorado counties and BLM are participating in this proposed project to assure that the approach is useful for local planning processes and meets their needs and interests.

Project Goals and Objectives

The goals and objectives of the sediment and channel management portion of the project include:

1) develop an ARWG and inter-agency field and site inventory approach for sediment sources and channel conditions suitable for use by all watershed resource agencies, citizen and landowner volunteers, and teacher/student field education participants;
2) emphasize field data collection based on a sub-watershed assessment of erosion and sediment production potential, disturbances, using field staff experience with watershed conditions;
3) collect meaningful site condition information on sediment sources and channel resources in the watershed through two field seasons using agency staff, citizen/landowner monitoring, and teacher/student education programs;
4) create a GIS data base characterizing sediment sources and channel conditions and locating possible restoration projects;
5) summarize sediment and channel process regimes through a sediment budget and routing approach and summarize natural and man-induced sediment/channel process issues;
6) develop and initiate a long-term ARWG Sediment Management Stewardship Program that includes on-going resource inventory, restoration project installation, and agency use of the data base for resource management decisions, with emphasis on federal, state, county and local water and power agency partnerships and support for landowners actions.

Goals and objectives of the EUI-based watershed planning portion of the project include;

1) modify the USFS EUI method and incorporate watershed process/function parameters to make it a suitable watershed assessment and planning tool;
2) identify modified EUI inventory protocols for non-USFS application;
3) develop a procedural method for using the modified EUI approach as a basis for developing a watershed plan;
4) develop an acceptable and implementable EUI-based NF/MF American Watershed Plan;
5) develop a EUI-Based Watershed Planning Method usable for large CALFED Solution Area watersheds with USFS/mixed jurisdictions.

Expected Outcomes

Outcomes for the sediment management portion include:

1) A watershed wide interagency and non-agency entity collaborative approach to assessing erosion, sediment management, and channel restoration that addresses key resources, beneficial uses, resources management practices and land use activities;
2) A GIS data base of inventoried sediment sources, channel conditions, and possible restoration projects;
3) A conceptual sediment budget assessment of the watershed that includes discrete and dispersed sediment sources under a wide range of land use and resource management practices, sediment routing in the watershed, channel processes and channel responses to short and long term sediment flux dynamics, and considers episodic event and natural relaxation patterns;
4) An ARWG Sediment Management Stewardship Program to foster and facilitate sediment source and channel restoration projects targeted at key resources, beneficial uses, and CALFED objectives in the watershed through collaboration and actions to include technical, permitting, installation, and funding acquisition support;
5) An ARWG Sediment Management Stewardship Program that develops long term collaboration for continued sediment source and channel condition inventory, maintenance and enhancement of the GIS database, modifies conceptual design approaches through adaptive management monitoring, and monitoring long term watershed trends in sediment and channel conditions;

Outcomes for the EUI-based watershed planning portion include:

1) An interagency agreement (MOU) to develop policy and principles for watershed planning approach;

2) A regionally applicable watershed management planning method for large watersheds in the Sierra Nevada with upstream USFS lands and downstream non-Forest Service lands;
3) A watershed plan containing policy and principles relating to water quality, water quantity, and ecosystem quality that applies collaborative watershed assessment in planning concerns between upstream Tahoe and Eldorado National Forests and downstream interests of Placer and El Dorado County and other resource managing agencies interests;
4) An EUI-based watershed process and function data set for introducing watershed related issues/concerns to on-going land use and resource management planning and decision-making at the local level.

Timetable for Completion

Upon contract approval by both parties the project will be completed by June 30, 2004. Specific task and subtask timetables are noted on the budget pages.

Methodology and Process

The following material is a general treatment of the approach the proposed project will take to achieve the goals and objectives. A more detailed treatment of specific task steps and the methods and processes to be employed are presented in Section 8 and are designed to support the task items detailed in the budget.

The first major project component is to extend the present Category III watershed process and function information to include an inventory of watershed sediment sources and channel conditions. This step will include a collaborative process with watershed agencies and other project participants in developing: 1) field forms, sampling protocols, and manpower distribution; 2) developing and maintaining of global GIS database of inventory information; 3) developing an understanding of land use, sediment production, channel disruption responses, change in key resource and beneficial use conditions, sediment routing, and sediment budgets.

The second major project component is to develop the existing USFS EUI method into a watershed assessment and planning tool. The present Category III findings and initial sediment and channel condition information from the proposed project will be used as the basis for supplementing an ongoing USFS EUI assessment on National Forest lands in the watershed and to extend that descriptive EUI assessment to the entire watershed. Watershed process and function parameters along with elements of spatial and temporal dynamism will augment the basic EUI tool. A local jurisdictional land use and resource management stakeholder team will develop a set of watershed policies and principles that will be a set of agreed upon planning and resource management objectives and the descriptive EUI data will be interpreted to address the watershed plan objectives. This method will be evaluated for technical and scientific validity, and institutional and implementation practicality, and will be developed into a proposed watershed based EUI method for watershed assessment and planning.

The third major project component is to develop a Sediment Management Stewardship Program that will be implemented and maintained by the ARWG and local, state, and federal resource management agencies to encourage and facilitate the implementation of sediment source and channel restorations projects on public and private lands by agencies, landowners, and economic sector interests.

2: Qualifications and Readiness

Institutional structure, Experience, Fiscal Agent

Placer County Resource Conservation District is an independent local special district created under Division 9 of the Public Resources Code. At the present time the District is administering three Clean Water Act grants (319 H) that involve up to six sub-contracts each; a Category III grant to prepare a watershed stewardship plan; portion of a Prop 204 grant, three contracts with local units of government (Placer County, City of Roseville and City of Lincoln) and two Watershed Coordinator Grants granted by the State Department of Conservation which total approximately $690,000.00. The Fiscal Agent will be Richard Gresham, Manager. The

District has the capacity, ability and time to complete the project. Each sub-contractor has successfully completed portions of on-going RCD contract work.

Technical support availability

US Forest Service Enterprise Team-Tahoe National Forest, WRC Environmental, the American River Watershed Institute, and various local state and federal members of a technical review team will provide technical support. Each of these entities is under existing contract through funded grants to perform various technical tasks within the project area and are incorporated into this proposal to maintain continuity.

Previous projects

Current grants include Category III to prepare the North and Middle Forks American River Watershed Stewardship Plan (in progress), a Prop.204 education and outreach effort regarding fuel load reduction and Clean Water Act Grants to restore stream function in Starr Ravine in cooperation with US Forest Service.

3: Project Budget

Budget and Cost Basis Cost Basis:

The Placer County Resource Conservation District is the project and contact manager for this grant proposal. Administrative duties and staff support functions are billed at the normal PCRCD rates which range from $17 to $58 per hour, as appropriate level staff persons are assigned to various tasks.
The basic approaches to estimating budget line items were as follows:

1) NRCS and RCD provided estimates for the Universal Soil Loss Equation analysis that will be an element of the watershed assessment.
2) USFS provided the estimates for the Roads Analysis extension from FS lands into the private lands, based on their experience and contracts for work done on FS lands.
3) The cost of citizen monitoring workshops during the summer is based on American River Watershed Institute experience in doing pre-restoration monitoring workshops in summer 2000, funded by the RWQCB 319h Site Specific Objective grant.
4) The cost of seasonal agency staff monitoring field team was provided by USFS based on typical costs.
5) The cost of EUI analysis is based on the per acre costs charged USFS for EUI analysis on the TNF and the EDNF by the Adaptive Management Services Enterprise Team, which is a specialized task force within the USFS.
6) The equipment costs are GPS laptop units currently used by Sierra College for their stream inventory data collection which would be needed to expedite data entry and collection. The price quotes for the units are current.
7) Consultant time and costs per hour are estimated based on current contracts in similar watershed work currently being accomplished in the field for the American River Watershed Group.
8) Products that are specified for peer review assume at least three reviewers, and assume a minimum fee of $500 for each reviewer.
9) Cost of outreach meetings to stakeholders in the watershed are based on experience gained from similar activities funded by Category III work.

The three primary contractors to PCRCD are the USFS, USFS Adaptive Management Services Enterprise Team (see above), and WRC Environmental. WRC Environmental is the primary contractor selected for analysis and product development. WRC Environmental has performed the first stages of the watershed assessment for the American River Watershed Group under a CALFED Category III grant in a satisfactory manner. This work integrates with and builds on the watershed assessment. Rates charged by WRC Environmental range from $45 to $85 per hour.

In-kind estimates were based on stated commitments from RCD for services in the soils analysis and Sierra College for services as a GIS center. Forest Service in-kind contributions for roads analysis and for EIU analysis

were the actual costs of the analysis performed on FS lands within the watershed boundary only, not for the whole forest. Forest Service also listed as a match the Stream Condition Inventory work that has been done in the watershed that will be used as part of the sediment inventory. ARWI matching funds come from the fees for summer Institute workshops, where attendees will be learning and performing watershed inventory monitoring procedures. The costs of participation from key agencies and consultants in the Scientific Advisory Panel for Stewardship was listed as a matching element. RCD commitment of $10,000 for coordination was noted as a match.

Cost Effectiveness

The sediment and channel management stewardship program will result in a global information data base for use by all watershed agencies and entities for the purpose of individual and collaborative restoration projects. The information will include a watershed-wide perspective of problems, conditions, expected trends, and natural vs. man-induced problems. It will include a set of possible restoration projects and a set of guidelines for identifying important projects and project types within the context of understood watershed dynamics and trends. It will also suggest project success and design concepts, and implementation methods. As a universal guideline approach for restoration in the watershed, this portion of the proposed project will be a very cost effective mechanism for supporting a stewardship program. The project insures identification of the highest priority sites and boosts collaboration among various agencies.

The EUI-based watershed planning portion of this project will be a cost effective way of developing a regionally applicable planning process for large-scale watersheds in the CALFED solution area. The timing of this project proposal is excellent from a cost perspective as the two National Forests in the watershed will have completed their respective EUI processes during the early term of this project. The costs associated with these on-going EUI processes are being borne by the USFS. However, the USFS EUI processes are at a point when watershed parameters can be added to these efforts from an evaluation of the present Category III project results. This provides an ideal timing opportunity for a methods research project for exploring the efficacy of modifying the USFS EUI process to a watershed process tool and exploring the modified EUI process as a basis for collaborative watershed planning for large-scale watershed with complex mixes of USFS and private, local jurisdictional lands. An EUI-Based Watershed Planning Method will make watershed planning more cost effective in other watersheds as well.

4: Project Technical Feasibility

Previous Similar Projects

Many watershed-wide sediment and channel management plans have been developed for watersheds throughout the US and other countries. Each is designed to meet unique objectives associated with existing data needs, agency and community resource objectives, and the nature of sediment, streamflow, and channel dynamic regimes. The proposed sediment management plan is designed to meet the needs specific to the NF/MF American River watershed. First, there are essentially no existing data on the conditions of these resources and processes in the watershed. Second, there are limited time and funding resources to develop a fully adequate resource condition data base. Third, there is the need for multiple agencies and landowners to access and understand a database. Finally, there is the need for the database to support a stewardship program and restoration project proposals. The approach to meet these needs makes the particulars of the proposed project unique in design but no new methods will be used. Success of other watershed-wide sediment management plans have depended on the development of clear and manageable objectives and a balancing of these objectives with the funding and technical capacity such that the objectives are achievable: This is our goal.

Feasibility and Efficacy of New Methods

While the USFS EUI method for mapping land units for ecological resource management decision-making is well established, its application to watershed assessment and planning is presently not appropriate.

With the completion of the NF/MF American River WSP&SS and an understanding of overall watershed process and function and of watershed sensitivity relative to the condition and viability of key-resource and beneficial uses, we are well positioned to modify the EUI process with watershed parameters and to develop techniques and procedures for modifying the EUI to make it a watershed assessment tool. We are also well positioned to use the resulting watershed-based EUI mapping to develop a procedure for applying it to a watershed wide multi-agency and entity planning process.

On-going Project Funding Needs

The proposed project will result in a Sediment Management Stewardship Program and an EUI-based watershed plan for the NF/MF American River watershed. The Sediment Management Stewardship Program will be implemented through the ARWG's overall stewardship program. These ARWG stewardship programs are implemented and maintained by the ARWG and its member agencies and entities. Therefore there will be no on-going external funding needs for the program itself. There will be, however, restoration projects that will be proposed for implementation through this program. These projects may be proposed by agencies, landowners, or other ARWG entities. Part of ARWG's stewardship program is to assist in finding funds necessary to implement restoration projects and some of the funding sources may be through future grant requests.

The EUI-based watershed plan and planning process will require no further external funding. Implementation of the NF/MF American River Watershed Plan through the Policies and Principles and the descriptive and interpretative watershed-based EUI data layers will occur through voluntary agency adoption at any particular implementation level and/or application unique to each agency. Any adoption and implementation of the NF/MF Watershed Plan will occur following the term of the proposed project and be the responsibility of those agencies and entities. The transfer and application of the EUI-Based Watershed Planning Methos in other watersheds may involve requests for funding support. However, the design objective of the proposed project is to develop a more cost effective and more universally applicable watershed assessment and planning approach so that should future funding requests be made of CALFED to support these projects in the Solution Area, they will be less costly, have more appropriate use for the various agencies and entities of the watershed, and will result in better adoption and application probabilities.

5: Implementation Monitoring

Performance Measures.

The performance measures of the sediment and channel assessment portion of the proposed project will be related to: 1) success in developing inter-agency field assessment and data management approaches which are also suited for non-agency application; 2) success in organizing agency and citizen-based data collection programs; 3) success in collecting two seasons of field condition data, appropriately distributed in the watershed, based on expected risk, and appropriately peer reviewed for consistency; 4) applicability of the database to agency and non-agency information needs; 5) data collection that supports interpretative understanding of conditions and processes; 6) a data collection system that identifies potential restoration projects, and; 7) the successful development of a stewardship program that fosters and supports restoration projects and actions, an ongoing program of collaborative field data collection, database maintenance, restoration project implementation, and an adaptive management cycle of project success and monitoring and modified conceptual design treatments.

The performance measures of the EUI-based watershed planning portion of the proposed project will be related to: 1) successful incorporation of watershed process and function parameters into the USFS EUI method; 2) successful development of a descriptive watershed-based EUI database; 3) successful identification of potential and appropriate institutional applications of watershed plan products; 4) successful development of watershed plan policies and principles by members of the watershed community; 5) successful interpretation of EUI's watershed process and function relationships from the policies and principles; 6) successful development of the NF/MF American River Watershed Plan, and; 7) successful development of a EUI-Based Watershed

Planning Method. The measures employed to evaluate these successes will be the review and acceptance by the project participants.

Local and Regional Monitoring Coordination.

The sediment source and channel condition field forms to be developed for this project will be designed to meet the global needs of the participating agencies, and will supplement and support the existing resource data collection efforts of local entities. They will be suitable for application by professionals as well as citizen volunteers, and will be designed to result in basic information such that interpretation of the data will be as compatible as possible with other regional data collection projects. These other projects will be reviewed and evaluated as one aspect of developing the resource inventory program of the proposed project. The central theme is to satisfy the data needs of the watershed agencies and non-agency entities that will collect and use the information for restoration actions. However the program will go through a QAPP review process in which regional compatibility and application will be addressed.

Citizen Monitoring.

Basic sediment source and channel condition inventory information will be collected through two field seasons by two citizen monitoring programs. The ARWG will organize a citizen and landowner program for collecting site information on the private lands of participating landowners and on public accessible lands throughout the watershed. This program will be sponsored through ARWG's existing Stewardship Strategy. The ARWI will organize a teacher/student field college program that will collect sediment source and channel condition information on public accessible lands in the watershed in conjunction with teaching and learning programs.

These citizen, landowner, and teacher/student monitoring programs will include training in field methods, field peer-review sessions with agency staff data collectors, and instruction on the use and application of the information for resource management assessment and decision–making.

Monitoring Protocols.

Monitoring protocols for applying the sediment source and channel condition inventory field sampling will be developed as part of the proposed project. The protocols will be designed to match the field skill background of the collection team and the data required for making adequate interpretations and findings. Part of the protocols process will be periodic field team peer review of field form application.

Data Collection Support to Local Decision Making.

The data collected on sediment sources and channel conditions is designed to support the ARWG's Stewardship Strategy which is a locally-based process for fostering and facilitating restoration actions and projects. All decisions on sediment and channel management (permits aside) will be through local decision-making, landowners, local agencies, and local units of state and federal agencies.

The EUI-based NF/MF American Watershed Plan is totally directed at developing a locally-driven set of watershed planning policies and principles and at developing a EUI interpretative database which can be used by all agencies and entities for locally-based watershed planning and process related decisions. His will build the capacity for local decision-making processes to incorporate watershed issues.

6: Scientific Basis for Proposed Actions.

The proposed project is a watershed assessment and planning process and methods research project and does not entail scientific research, educational nor action-oriented project implementation. (CALFED Presentation by Dennis Bowker at Yuba City meeting 4/12/2001).

7: CALFED Objectives and EIR/EIS Compliance

The proposed project will address CALFED's Ecosystem Quality, Water Supply, and Water Quality objectives in the North and Middle Forks of the American River. To the extent that Folsom Reservoir acts to collect some of the contributed sediment, the lower American River is similarly influenced maintaining good water quality and dependable quantity. The EUI process is intended to have a future influence on ecosystem quality, water quality and through guidelines and principals developed in the project.

In part, community interest is expressed through the ARWG to ensure that the EUI process and resulting policies are implementable at the local level and meets the needs the various community interests and values.

Watershed Management / CALFED Goals and Objectives Relations.

The proposed project is totally oriented toward extending a watershed assessment, targeted on watershed process and function, to a watershed plan designed for local implementation through a locally lead planning exercise. In that regard the proposed project's main focus is using a community-based process of translating watershed process and function understanding through a collaborative, institutional and community-based effort to develop acceptable watershed policies and principles and to develop a science based interpretation of resource information to apply the policy and principles to land use and resource management decision-making at the local level. The American River Watershed is uniquely suited to pilot this approach, as there are four local power and water resource public agencies, and two counties represented within the boundaries of the watershed; all entities are signatories to the ARWG Memorandum of Understanding, and letters of endorsement from the counties and major agencies are included as attachments to this proposal.

Environmental compliance

The State Department of Water Resources is the Lead agency for CEQA process. Public Resources Code Sections 21102 and 21150 declare that "feasibility or planning studies for possible future actions that the agency has not approved, adopted or funded are statutorily exempt from CEQA". Categorical exemption, Class 6 "exempts basic data collection, research, experimental management, and resource evaluation activities that do not result in major disturbance to an environmental resource". The proposed project extends the combined watershed process/function knowledge base to a watershed plan. The proposed watershed plan portion to the project will be a research methods effort to adopt the USFS EUI method to watershed planning and management purposes. Because this is a basic data collection and resource evaluation effort, this project is both categorically and statutorily exempt.

8: Additional Project Attributes

Local and community support.

As the attached letters indicate, there is very strong support for both components of this proposal from local, state, and federal entities. All of the critical governmental entities have written letters of support for this proposal. The multiple jurisdictions within this watershed make this a unique learning opportunity to pilot particularly the EUI-based watershed approach.

On the local level, the watershed spans two counties, Placer and El Dorado. Letters are included from the planning department heads of both counties; each county has committed to participate in designing and refining the EIU approach, and further have stated that it is in their interest to review this approach for its potential inclusion as a permanent tool in the land use planning process for each county. Importantly, there are champions of this process on the governing Boards of Supervisors for both counties, as indicated by specific letters of support from Supervisors from both counties. The collaborative design and review process will be greatly enriched by this close participation from the counties at multiple levels. This greatly increases the likelihood that the products of this proposal will be replicable in other regions of the CALFED solution area.

State and federal endorsement and cooperation is also indicated in the letters of support and commitment to participation. Support from local political leaders is also important when considering the pilot project as a potential regional model.

The Sediment Management and Stewardship Plan likewise has the support of the key entities. This approach may find ready adoption by the local agencies, resulting in a sustainable monitoring and management program. The project comes at a critical choice point for the water and power agencies: FERC re-licensing is scheduled for Sacramento Municipal Utility District in 2006 and for Placer County Water Agency in 2013. Other smaller water agencies in the watershed, both public and private, provide further opportunities for learning and adoption---Foresthill PUD, El Dorado County Water District, Weimar Water Company, etc.

Method and Process Detail.

To further assist in proposal evaluation, we here provide some more detailed project method and process discussion:

First (Task 2 in the budget), will be the inventory of sediment and channel conditions in the watershed, developing an understanding of watershed-wide sediment channel condition processes, developing a GIS data system and identifying potential restoration projects. This task will include a review of existing WSP&SS watershed erosion potential, disturbance, and possible stream conditions and rating relative erosion potential and channel disruption by sub-watersheds. The ongoing USFS Road Inventory project on the TNF will be extended to the watershed portion of the ENF. These results will be evaluated for erosion and sediment production potential and these findings will be extrapolated to the non-USFS portion of the watershed for use in determining field inventory manpower requirements. The USLE (or a variant) will be applied to the entire watershed using the existing WSP&SS data base and some field verification to identify possible dispersed sediment sources.

An ARWG and inter-agency resource group will create general sediment source and channel condition survey forms that meet the collective needs and will develop protocols through a QAPP process in coordination with the SWRCB. Agency staff field teams will be used to collect information along with a citizen/landowner monitoring team sponsored by the ARWG and a teacher/student education team sponsored by the American River Watershed Institute (ARWI).

Field data will be collected over two field seasons and will be entered into a GIS data base in a format that provides the resource agencies and the ARWG with useful watershed-wide information. The crews will be trained in field protocols and will be periodically re-trained through combined field peer review sessions.

The results of the review of existing data and findings of the field surveys will be used to develop a watershed sediment and channel process understanding including sediment production, budget, routing, and the influences of the sediment regime on channel conditions and processes. Emphasis will be placed on long-term natural erosion, channel adjustment dynamic relationships and man-induced elevated rates of sediment production and channel changes. The field review will be used to identify potential sediment and channel restoration project sites.

Second (Task 3 in budget), the existing WSP&SS results will be reviewed to identify particular watershed process/function issues and elements that should be reflected in the modified EUI approach. Those watershed parameters selected will be added to the ongoing Tahoe NF EUI project for application by the USFS of the modified EUI to the TNF portion of the watershed will modify the ENF EUI for the ENF portion of the watershed and will be applied to the non-USFS portion of the watershed. This will result in the application of the watershed-based EUI, using USFS protocols, applied consistently throughout the entire watershed by one entity at the same inventory scale. A experimental application using less involved protocols will be applied to areas of the non-USFS portions of the watershed to determine if alternative levels of assessment can adequately serve the needs of local jurisdictions.

Third (Task 4 in the budget), will be the development of an EUI-Based Watershed Planning Method architecture and the application of the process to the NF/MF American River watershed. The ARWG will convene a working Implementation and Applications group that represent the land use and resource management entities in the watershed. This group will assist in defining and relevant venues of watershed plan application and implementation, define key-resources to be the subject of the plan, and define resource management goals etc. The ARWG/ARWI will organize and manage a community involvement program to solicit key input from all community sectors as defined by our WSP&SS project. The ARWG Implementation and Application group will develop watershed Policies and Principles for collaborative watershed management and planning using the public input and the existing watershed resource condition inventory information developed through the WSP&SS and the sediment and channel condition inventory.

The mapped watershed-based EUIs will be reevaluated based on the agreed to Policies and Principles. The descriptive EUIs (developed in Task 3) will be converted to interpretative findings and rated with respect to watershed process/functions sensitivity based on the adopted Policies and Principles. This interpreted EUI data base will be the watershed data base that supports the agreed to Policies and Principles. Together with an implementation strategy, the Policies and Principles and the interpreted watershed based EUI data set will be the NF/NF American Watershed Plan

Fourth (Task 5 in the budget), is the development of a proposed EUI-Based Watershed Planning Method. It will be developed through a critical review of the architecture developed for the NF/MF American Watershed Plan effort and an evaluation of its suitability at all levels of jurisdictional application for watershed planning as well as for other resource related management planning and decision making. The ARWG Implementation and Applications groups in a structured review setting will conduct this critique. A revised EUI-Based Watershed Planning Method will be developed and will be reviewed by a selected group or regional technical and implementation oriented individual to be selected through the ARWG and CALFED watershed staff. Following peer review and modification we will present project findings and a review of our applications experience to CALFED.

Fifth (Task 6 in the budget), is the development and implementation of an on-going ARWG Sediment Management Stewardship Program to be created within the framework of ARWG's present general stewardship program and be based on the results of Task 2 (above). The Stewardship Program will include a prioritization of

restoration project, mechanisms for facilitating collaborative projects within the agency, landowner, and economic interest sectors, and a restoration manual which will include permitting information, conceptual design solutions, project installation, success criteria, and success monitoring protocols, etc. The Stewardship Program will include mechanisms for continued collaboration of field data acquisition, updating the GIS database, improving the understanding of sediment and channel morphologic regimes, and identifying additional projects. The results of the sediment and channel program will be used to add to the watershed management planning decision making through the NF/MF American Watershed planning process.

Section 8 Agreement

Placer County Resource Conservation District agrees to comply with the Standard Terms and Conditions in Section 8 of the original Proposal Solicitation Package.

Subcontractors by Task

Task Description	Labor Rate*	Hours	Total Labor	Supplies	Travel	Materials	Sub-contract**	Match	CALFED	Total
Task 1: Adminstration	17-58	775	$ 35,000	$ 4,000	$1,000		RCD		$ 40,000	$ 40,000
Task 1: Administration)	40	220	$ 8,800		$1,200		RCD/WSCo	$ 10,000		$ 10,000
Sediment Management Plan: Tasks 2 & 6										
Task 2: Sediment Inventory							WRC		$ 69,000	$ 69,000
Task 2: Sediment Inventory							ARWI	$ 16,000	$ 25,000	$ 41,000
Task 2: Sediment Inventory							RCD	$ 12,000	$ 14,000	$ 26,000
Task 2: Sediment Inventory							FS	#######	$ 30,000	#######
Task 6: Sediment Plan							WRC		$ 22,000	$ 22,000
Task 6: Sediment Plan							RCD		$ 28,000	$ 28,000
EUI Based Watershed Plan: Tasks 3 thru 5										
Tas 3: EIU Analysis							FS	#######	#######	#######
Tas 3: EIU Analysis							WRC		$ 55,000	$ 55,000
Task 4: EIU Watershed Plan							RCD	$ 1,000	$ 61,000	$ 62,000
Task 4: EIU Watershed Plan							WRC		$ 16,000	$ 16,000
Task 5: EIU Planning Model							ARWI		$ 4,000	$ 4,000
Task 5: EIU Planning Model							RCD	$ 2,000	$ 5,500	$ 7,500
Task 8: Final Reports							WRC		$ 12,500	$ 12,500
Task 8: Final Reports							RCD		$ 10,000	$ 10,000
Task 8: Final Reports							ARWI		$ 1,500	$ 1,500

CALFED WATERSHED PROGRAM BUDGET AND PROJECT SUMMARY II
NF/MF American River EUI-Based Watershed Plan Project

	Task Description	Completion date	Match funds	CALFED funds	Total
Task 1:	Administration:	Jun-04	$ 10,000	$ 40,000	$ 50,000
	contract completion, monitor, supervise and review all work performed; coordinate budgetting, scheduling, agreement, permitting and subcontract				
Task 1a:	administration				
	Task Product(s): *Quarterly status reports; subcontracts documentation; project report*				
	Success Criteria: *projects measured by time and budget, percent completion tracking, use of state-of-art project software for tracking*				
Task 2:	Inventory channel and sediment conditions	Nov-03	$ 128,000	$ 150,500	$ 278,500
	senstitivies as determined by 1998 Category III				
Task 2a	grant	1/30/02			
Task 2b	Extend TNF Road Inventory Analysis	5/30/02			
	Road Inventory Analysis on private lands	5/30/02			
	Develop technical/agency advisory working group				
Task 2c	and define system approach	3/30/02			
	Develolp forms, set up protocols & QAPP, develop data base approach and GIS approach	5/30/02			
	Develop citizen-based and professional monitoring approach	5/30/02			
	Conduct subwatershed analysis for erosion potential and disturbed streams	5/30/02			
Task 2d	Conduct two field seasons of data collection	9/30/03			
	Organize and train field crews, conduct data collection and quality control	9/30/03			
	Conduct USLE analysis	10/30/02			

	Entry into GIS, analyze and interpret	11/30/03
Task 2e	channel network, sensitivity, riparian and aquatic habitat, sediment impacts, sediment budget and routing, channel types watershed-wide	12/30/03

Task Product(s): *List of data needs, protocol and field form, subwatershed analysis of erosion potential, field crew strategy, GIS data base, USLE analysis, inventory of potential project sites, interpretation*

Success Criteria: *agreement of advisory working group and stakeholder group, acceptance for long term use by agencies, peer review,*

		Completion date	Match funds	CALFED funds	Total
Task 3:	Watershed Ecological Unit Inventory Analysi	Jan-02	$ 145,000	$ 200,000	$ 345,000
Task 3a:	ID watershed attributes for inclusion in EUI analysis	1/30/02			
	Extend modifications of EUI to El Dorado NF	11/30/03			
Task 3b:	Conduct GIS based EUI analysis watershed-wide,	11/30/03			
Task 3c:	Field crews conduct data collection and quality control				
Task 3d:	Develop and test EUI protocols appropriate for non-FS county planning processes	11/30/03			

Task Product(s): *GIS layer of EUI watershed-wide, EUI Report*

Success Criteria: *GIS layer to FS standards; acceptability to local agency planning processes, acceptance by stakeholder group*

		Completion date	Match funds	CALFED funds	Total
Task4	Develop EUI Based Watershed Plan	Feb-04	$ 1,000	$ 75,000	$ 76,000
Task 4a	Assess needs and implementation opportunities among agencies for utilizing EUI-based WS plan	5/30/02			
Task 4b	Develop Watershed Plan Policies and Principles; determine resource quality objectives; identify issues to be addressed; define interagency collaboration for implementation; three outreach meetings	12/30/03			
Task 4c	Relate policies, principles and objectives onto landscape through EUI analysis;	2/28/04			

Task 4d	Establish EUI adaptive management strategy; ID research needs and strategies to acquire information, e.g. citizen monitoring	2/28/04
Task 4e	Prepare EUI based Watershed Plan with findings and implementation steps	3/30/04

Task Product(s): *Watershed plan and procedures; GIS map and data layers completion*

Success Criteria: *Concurrance of stakeholder group and project team; meeting CALFED objectives*

		Completion date	Match funds	CALFED funds	Total
Task 5	Develop EUI-Based Planning Model	Jun-04	$ 2,000	$ 15,000	$ 17,000
Task 5a	Advisory teams and ARWG evaluate, refine, and create relplicable/transferable EUI-based planning model	3/30/04			
Task 5b	Produce methods report, peer review, and refine	5/30/04			
Task 5c	Present findings to CALFED, county planning association, prepare poster, present on web site	6/30/04			

Task Product(s): *Replicable method and model; peer review report; presentations; web site posting*

Success Criteria: *Acceptance by ARWG; favorable peer review B82*

		Completion date	Match funds	CALFED funds	Total
Task 6	Develop WS Sediment Management Plan	May-04		$ 50,000	$ 50,000
Task 6a	Prioritize sediment source and channel restoration projects	9/30/03			
Task 6b	Develop conceptual design solutions by project types and site types	11/30/03			
Task 6c	Establish ARWG restoration project implementation program; produce restoration manual	4/30/04			
Task 6d	Establish long-term ARWG monitoring program	5/30/04			

Task Product(s): *Stewardship Plan: Restoration Manual, Prioritized list of restoration projects, established monitoring plan and ongoing monitoring program*

Success Criteria: *favorable peer review of manual, , adoption by ARWG, level of adoption and participation by local agencies*

		Completion date	Match funds	CALFED funds	Total
Task 7	Prepare EIR/EIS Evaluation	N/A	N/A	N/A	N/A
Task 8:	Reporting and Presentations	Jun-04	$ -	$ 24,000	$ 24,000
\Task 8a:	Quarterly progress reports: Progress reports on project implementation, including financial status, milestones reached, products completed, and general assessment of overall progress, including problems encountered or anticipated.	6/30/04			
Task 8b:	Draft final report: Draft report summarizing the project implementation, achievements, product deliveries, financial status. To be sent to the Contract Manager for review and comment.				
Task 8c:	Final report: Revised report incorporating comments from the Contract Manager and others.				
Task dd:	Presentations: Delivering at least one final summary presentation to CALFED.				

Task Product(s): *quarterly and final reports; presentations*

Success Criteria: *Acceptance by CALFED*

Totals	Match funds	CALFED funds	Total
full proposal	$ 286,000	$ 554,500	$ 840,500
severable proposal:			
Sediment Mgt plan (possible prop. 13)	$ 128,000	$ 200,500	$ 328,500
EUI based Watershed plan	$ 158,000	$ 354,000	$ 512,000